

**Municipality/Organization:** Town of Billerica

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**EPA NPDES Permit Number:** MA041182

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**Mass DEP Transmittal Number:** W-040980

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**Annual Report Number & Reporting Period:** Year 10  
April 1, 2012 – March 31, 2013

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## NPDES PII Small MS4 General Permit Annual Report (Due: May 1, 2013)

### Part I. General Information

Contact Person: Kelley Conway

Title: Town Engineer

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#### Certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: 

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Printed Name: John C. Curran

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Title: Town Manager

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Date: 4/29/2013

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## **Part II. Self-Assessment**

During Permit Year 10 (April 1, 2012 through March 31, 2013), the Town of Billerica continued to implement its stormwater management plan. As required by Part II.D of the General Permit, the Town of Billerica has completed the required self-assessment and has determined that our municipality is in compliance with permit conditions, and that the selected BMPs and associated measurable goals continue to be appropriate.

The Town will continue to implement BMPs as budget and staff time allows.

Once the General Permit for the next five years is available from EPA, the Town will prepare and submit a Notice of Intent and revise its stormwater management program for compliance with the new General Permit. BMPs and measurable goals will be modified and updated as needed to comply with requirements of the new General Permit, once the final is issued.

Billerica is part of a regional collaborative including the communities of Chelmsford, Dracut, Dunstable, Lowell, Pepperell, Tewksbury, Tyngsborough and Westford led by the Northern Middlesex Council of Governments (NMCOG). The goal of the collaborative is to effectively manage stormwater by utilizing new approaches and resource sharing in order to keep costs at a minimum and improve the quality of service provided to residents. Seven (7) of the nine (9) communities are designated as MS4's by the EPA. The intent of the collaboration is to better address current and proposed stormwater management requirements. This collaborative recently received a Community Innovation Challenge Grant from the Massachusetts Executive Office of Energy and Environmental Affairs.

**Part III. Summary of Minimum Control Measures**

**1. Public Education and Outreach**

<b>BMP ID #</b>	<b>BMP Description</b>	<b>Responsible Dept./Person Name</b>	<b>Measurable Goal(s)</b>	<b>Progress on Goal(s) – Permit Year 10</b> (Reliance on non-municipal partners indicated, if any)	<b>Planned Activities – Next Permit</b>
1.3.1 Revised	Partner with local organization	Engineering	Partner with one organization each year.	Town continued to partner with SuAsCo and receive support on stormwater public education and outreach. Town continued to partner with the Central Massachusetts Mosquito Control Project for stream cleaning, sediment removal, and mosquito control activities (see BMPs 2.3.6 and 6.3.8).	Continue to implement BMP as budget and staff time allows.
1.3.2 Revised	Public Education Materials	BOH & DPW	Stormwater brochures available at Town offices and booth at Health Fair	Town continued to make a variety of brochures and books available at various town offices including the Water Dept, Conservation, DPW, and BOH. The annual 2011 Water Quality Report distributed to all town residents and businesses contained stormwater information. Stormwater bulletin board at Town Hall continues to present stormwater information.	Continue to implement BMP as budget and staff time allows.
1.3.3 Revised	Local schools education program	School Dept.	Present stormwater to two schools each year.	Wastewater Staff annually educate almost 100 classrooms in six elementary schools about water quality. Partnered with Woodard & Curran and the Ditson School to participate in World Water Monitoring Day on October 15, 2012, where students were educated about water quality and stormwater pollution, and students collected water quality information about Nutting Lake, an impaired waterbody in Town.	Continue to implement BMP as budget and staff time allows.
1.3.4 Revised	Stormwater Web Page	Engineering	Develop stormwater web page and update as needed.	Town continued to maintain the Stormwater Management webpage at <a href="http://www.billericadpw.org">www.billericadpw.org</a> Town's MS4 Annual Report continued to be made available for viewing on DPW webpage.	Continue to implement BMP as budget and staff time allows.

1.3.5 Revised	Cable Access TV Show	Engineering	Select a stormwater program for viewing on BATV.	No planned activities for Permit Year 10. <i>After The Storm</i> and <i>Think Green</i> were both played on Billerica Access TV multiple times in prior permit years.	BMP Complete
1.3.6 Revised	Public Access GIS Tool	Engineering	Provide public access to maps of streams, rivers, storm drains and water quality data by Year 5.	Online access to several maps including the Stormwater System, Estimated Habitats, and Green Engineering Flood Plain continued to be provided through the DPW website at <a href="http://www.billericadpw.org">www.billericadpw.org</a>	Continue to implement BMP as budget and staff time allows.
1.4.1 Revised	Stormwater flyer to residents	SuAsCo & DPW	No Goal(s) for Yr. 10	Various town offices (Water Dept., Conservation, DPW, BOH) continued to make Stormwater Flyers available. Annual Water Quality Report is mailed to residents and contains stormwater information each year (See BMP 1.3.2)	Continue to implement BMP as budget and staff time allows.
1.4.2 Revised	Stormwater lesson plan	SuAsCo & DPW	No Goal(s) for Yr. 10	The School Department has a copy of the stormwater lesson plan available for the teachers to use. Wastewater Staff annually educate almost 100 classrooms in six elementary schools about water quality and stormwater pollution.	Continue to implement BMP as budget and staff time allows.
1.4.3 Revised	Media toolkit and stormwater PowerPoint program	SuAsCo & DPW	No Goal(s) for Yr. 10	No additional activities were planned for Permit Year 10.	BMP Complete
1.4.4 Revised	Business Flyer & Storm Drain Marking	SuAsCo & DPW	Stormwater flyer to 50% of Town businesses	Stormwater Business Flyers are available at various offices around town (Water Dept, Conservation, DPW, BOH). Stormwater Flyers were mailed out in previous years. Continued storm drain marking program (See BMP 2.3.2).	Continue to implement BMP as budget and staff time allows.
1.4.5 Revised	Stormwater Outreach Materials	SuAsCo & DPW	No Goal(s) for Yr. 10	Stormwater postcards distributed to different Town departments for handout and display (see BMPs 1.3.2 and 1.4.4). Pet Waste postcards distributed with new dog licenses.	BMP Complete

## 2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit
2.3.1 Revised	Partner / Support a Watershed Organization	Engineering	Partner with one local organization each year.	Continued partnership with SuAsCo to involve the public in stormwater activities	Continue to implement BMP as budget and staff time allows.
2.3.2 Revised	Storm drain stenciling program	Engineering	Develop & Implement drain marking program	Continued with storm drain marking program. Markers are a glue-down curbing marker that says “DON’T POLLUTE” and “DRAINS TO WATERWAYS”. Markers have been installed in previous years.	Continue to implement BMP as budget and staff time allows.
2.3.3 Revised	Stormwater Public Meetings Program	Engineering	Discuss stormwater at one or more public meetings each year	Stormwater Management is discussed at Board of Health, Conservation Commission, and Planning Board meetings.	Continue to implement BMP as budget and staff time allows.
2.3.4 Revised	Substituted 2.3.7 in Permit Year 4	DPW	No Goal(s) for Yr. 10	N/A	N/A
2.3.5 Revised	Recreation Department Public Education Program	Engineering	Involve Recreation Department in stormwater public education program each year.	Recreation Dept has stormwater posters and postcards on display. Billerica Recreation continues to support the Take 5 Program encouraging residents to pick up trash in public areas and continually educates the public about proper pet care. Pet Waste Stations are installed and maintained at most public parks throughout Billerica.	Continue to implement BMP as budget and staff time allows.
2.3.6 Revised	Annual “Clean the Stream” program	Recreation	Recruit volunteers for each years’ stormwater cleaning effort	Annual Town wide “Clean-up/ Green-up” event held on May 5, 2012. Contracted with the Commonwealth of Massachusetts Middlesex Sheriffs Office for assistance with cleaning and preparations of parks, playgrounds, and beach. Contracted with Central Massachusetts Mosquito Control Project to clean 8,805’ of streams and 17 culverts.	Working with Billerica Community Alliance for Clean-up/Green-up for May 4, 2013.

2.3.7 Revised	Develop Stormwater By-Law Advisory Group	Stormwater By-Law Working Group	No Goal(s) for Yr. 10	BMP Complete – By-law adopted.	BMP Complete
2.4.1 Revised	Stormwater traveling display	SuAsCo & DPW	No Goal(s) for Yr. 10	‘Think Green’ display received in Year 6 continues to be exhibited at the Town Hall.	BMP Complete
2.4.2 Revised	Stormwater poster contest	SuAsCo & DPW	No Goal(s) for Yr. 10	Year 3 product eliminated by SuAsCo	N/A
2.4.3 Revised	Stormwater photo contest	SuAsCo & DPW	No Goal(s) for Yr. 10	Year 3 product eliminated by SuAsCo	N/A
2.4.4 Revised	Stormwater summit special event	SuAsCo & DPW	No Goal(s) for Yr. 10	BMP Complete in Permit Year 5	BMP Complete
2.4.5 Revised	Stormwater super summit	SuAsCo & DPW	No Goal(s) for Yr. 10	BMP Complete in Permit Year 5	BMP Complete

### 3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit
3.4.1 Revised	Asset Management Program	Engineering	Implement stormwater Asset Management program.	No measurable goals planned for Year 10. Asset management program is in place to track public complaints, catch basin cleaning efforts, and drainage repairs.	BMP Complete
3.4.2 Revised	Storm Drain Map	Engineering	Complete and update Town-wide GIS drainage map	Town has mapped all of the Town's outfalls and receiving waters in GIS. Mapping includes catch basins, manholes, and connectivity. Through its drainage system maintenance activities, Town continues to verify accuracy and completeness of drainage map and improve map.	Continue on going review of and updates to drain map.
3.4.3 Revised	TMDL, Critical Habitat, Historic Property	Engineering	Monitor changes in TMDL, Critical Habitat & Historic Site	No new TMDLs have been finalized in Permit Year 10 for Billerica's receiving waters. There are no changes to the Town's General Permit eligibility under the ESA or National Historic Preservation Act.	Continue to implement BMP as budget and staff time allows.
3.4.4 Revised	Stormwater By-Law	Board of Health	Implement approved Stormwater By-law.	The "By-law Governing Discharges to the Municipal Storm Sewer System" was adopted as Article XXVI in the Town's General By-laws and is implemented by the Board of Health. This by-law prohibits non-stormwater discharges and illegal dumping to the drainage system and includes enforcement procedures and actions.	BMP Complete. Continue to implement bylaw.

3.4.5 Revised	Illicit Discharge Detection Program	DPW	Implement IDDE Program.	Town has implemented an IDDE Program. During the permit term, Town has inspected 100% of its outfalls during dry weather conditions. Town utilizes written IDDE Protocol based on the Center for Watershed Protection <i>Illicit Discharge Detection and Elimination – A Guide Manual for Program Development and Technical Assessments</i> and EPA's <i>Standard Operating Procedure (SOP) for Surface Water Sampling</i> . Through its drainage system maintenance activities, Town continues to inspect the drainage system.	Measurable goals met. Continue to implement BMP as budget and staff time allows.
3.4.6 Revised	Illicit Discharge Elimination Program	Board of Health	Enforce illicit discharges by-law	The "By-law Governing Discharges to the Municipal Storm Sewer System" was adopted as Article XXVI in the Town's General By-laws. Continue to investigate possible illicit discharges, respond to public complaints, and take appropriate action.	Enforce the new by-law by responding to public complaints and through ongoing illicit discharge detection activities by the DPW.
3.4.7 Revised	Resident education program	DPW	Develop and distribute fliers defining illicit discharges and summarizing the Town Stormwater Regulations	Town continues to maintain Information about Article XXVI, the "By-law Governing Discharges to the Municipal Storm Sewer System" on the DPW website. In addition, information is available at the Board of Health. No measurable goal for Permit Year 10, measurable goal met in previous permit year when by-law was adopted.	BMP Complete



#### 4. Construction Site Stormwater Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit
4.2.1 Revised	Regulatory Controls	Board of Health	Develop “Erosion & Sediment Control” by-law & enhance as appropriate.	Town adopted Article XXV, the “Stormwater Management By-law”, which requires erosion and sediment controls at construction sites for projects that meet the scope and applicability of the by-law and Wetland Protection By-law. No changes are necessary at this time.	BMP Complete
4.2.2 Revised	Review and site inspection procedures	Board of Health	Review new site plans against the by-law	Town’s Stormwater Management By-law and Stormwater Management Regulations contain construction site review and site inspection procedures. Town reviews plans that meet the scope and applicability of the by-law and inspections of projects are conducted. In Summer 2011, the Town completed development of numerous applications, inspection and certification forms to facilitate review and site inspections as part of the Stormwater Management Permit process. Town also developed methods to track Stormwater Management Permitting and long-term operation and maintenance.	Continue to implement BMP
4.2.3 Revised	Enforcement procedures	Board of Health	Develop and implement enforcement procedures and sanctions for stormwater violators	Enforcement procedures and sanctions to ensure compliance with the By-law are included in the Stormwater Management By-law and in the Stormwater Management Regulations. These procedures and sanctions are implemented and enforced by the Board of Health and Conservation Commission. Board of Health sent a letter out to residents about pet waste in storm drains. Town receives comments from the public via phone calls and through the DPW website. Town considers and addresses public comments.	BMP Complete. Continue to implement enforcement procedures and sanctions as needed.
4.2.4 Revised	Procedures for Handling Public Comments	DPW	Develop & implement public comment procedure		Continue to coordinate with other Departments to track and address comments from public.

### 5. Post-Construction Stormwater Management in New Development and Redevelopment

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit
5.3.1 Revised	Structural stormwater controls	Planning Board	Revise subdivision rules and regulations with new BMP's	Planning Board continues the process of reviewing the subdivision rules and regulations to make them consistent with the Town's new stormwater by-laws and regulations and incorporate LID features into the regulations.	BMP Complete. Review and revised regulations as needed.
5.3.2 Revised	Local By-Laws	Stormwater By-Law Working Group	Develop General By-Law	The Stormwater Management By-law was adopted as Article XXV in the Town's General By-laws. By-law and associated Stormwater Management Regulations require new-development and re-development projects to address post-construction stormwater management.	BMP Complete
5.3.3 Revised	Planning Strategies	Engineering	Review Current Town Master Plan	No activities planned for this Permit Year.	BMP Complete

<p>5.3.4</p> <p>Revised</p>	<p>Conditions for private stormwater systems</p>	<p>BOH</p>	<p>Develop maintenance requirements for private stormwater systems</p>	<p>Article XXV, the Stormwater Management By-law and the Stormwater Management Regulations include operation and maintenance requirements for private stormwater systems. In Summer 2011, the Board of Health and Engineering completed development of forms and guidance to facilitate implementation of the Stormwater Management Permit, including development of a template for Inspection and Maintenance Agreements and an example Annual O&amp;M Inspection Report.</p>	<p>BMP Complete. Continue to enforce requirements.</p>
<p>5.3.5</p> <p>Revised</p>	<p>Stormwater infrastructure inspection program</p>	<p>BOH</p>	<p>Develop technology based inspection program</p>	<p>Continue to implement the asset management program to track BMP maintenance. ( See BMP 3.4.1)</p>	<p>BMP Complete</p>

## 6. Pollution Prevention and Good Housekeeping in Municipal Operations

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit
6.3.1 Revised	Pollution Prevention Planning	Highway Dept.	Develop a Stormwater Pollution Prevention Plan	Town has developed a Stormwater Pollution Prevention Plan (SWPPP) for the Highway Facility. Continued with vehicle washing program for DPW.	BMP Complete. Continue to implement SWPPP activities.
6.3.2 Revised	Employee Training Program	DPW	Implement employee training program	Town continues to informally train employees on pollution prevention and good housekeeping practices for municipal operations.	BMP Complete. Continue to implement BMP.
6.3.3 Revised	Recycling Program	Highway Dept.	Monitor recycling program & enhance if necessary	Annual hazardous waste day was held on October 20, 2012. Town provided oil recycling program on monthly basis. The “2012 Recycling and Trash Collection Guide” was distributed to residents and made available on the DPW website at <a href="http://www.billerica.dpw.org">www.billerica.dpw.org</a> . Rain barrels and composters were again made available for Billerica residents to purchase in the spring at a discounted price.	BMP Complete.
6.3.4 Revised	Catch Basin Cleaning Program	Highway Dept.	Clean catch basins each year and monitor pounds of sediment removed.	Catch basin cleaning was contracted out in 2012. The contractor cleaned 1,690 catch basins from November 2012 to December 2012. Highway performed routine inspections and rebuilt basins as needed. 64.70 tons of material was removed from the drainage system in Permit Year 10 and contractor disposed of material at a regulated facility in accordance with MassDEP’s Management of Catch Basin Cleanings.	Continue to clean catch basins each year as needed, and as budget allows.

6.3.5 Revised	Street Sweeping Program	Highway Dept.	Sweep streets each year and monitor pounds of sediment removed.	All Town roadways were swept from April thru October 2012. Sweeping was restarted in March 2013. Highway Division monitored sediment removed. In Permit Year 10, 1,422,000 pounds of material was removed from streets throughout Town and paid Allied Waste to appropriately dispose of sweepings.	Continue to sweep streets as needed
6.3.6	Operations and Maintenance	DPW	Inventory ongoing stormwater maintenance activities	Municipal facilities and associated stormwater maintenance activities were inventoried as part of development of SWPPP. Facilities include DPW (Engineering, Highway, Cemetery, Parks, Trees, Water and wastewater), Recreation, Police, Fire, and School Departments. SWPPP details stormwater pollutants and potential impacts to waterbodies, and local water quality impairments. SWPPP also lists Best Management Practices for: Road Sand/Salt Application & Storage; Snow Stockpiling & Removal; Materials Management; Hazardous Material Storage; Vehicle Fueling, Maintenance & Storage; Vehicle Washing; Spill Prevention & Response; Lawn and Grounds Maintenance; Street & Parking Lot Sweeping; Catch Basin Cleaning; Stormwater Line Maintenance; Pet Waste & Litter; and Mosquito Control.  Town continued to implement SWPPP as needed.	BMP Complete
6.3.7 Revised	Reporting	DPW	Continue to track stormwater management activities and submit annual report	Town tracked stormwater management activities and submitted annual report.	BMP Complete

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 9 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit
6.3.8	Mosquito Control Project & Drainage System Maintenance	Engineering	Record of improved drainage system inspection and maintenance.	Town continued drainage system maintenance through the efforts of the Central Massachusetts Mosquito Control Project. Brush and other accumulated debris were removed from culverts and streams. Efforts also included insertion of larvacides in Town catch basins.	BMP Complete. Continue to implement BMP as budget and staff time allows.
Revised					

## 7. BMPs for Meeting Total Maximum Daily Load (TMDL) Waste Load Allocations (WLA)

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit
7.2.1	Monitor Current Impairment Lists	DPW	Continue to monitor TMDL studies annually and develop programs as appropriate.	In prior permit years, the Town reviewed the <i>Bacteria TMDL for Shawsheen River Basin</i> and the <i>Draft Pathogen TMDL for the Concord River Watershed</i> and created a plan to address TMDL recommendations. In Permit Year 10, the Town reviewed MassDEP’s website for updates to TMDLs and reviewed the Proposed Massachusetts Year 2012 Integrated List of Waters for updates to list of impairments in Town. No additional TMDLs for waterbodies in Billerica have been finalized. See the WLA Assessment provided below for details on BMPs being implemented to address the Shawsheen River Bacteria TMDL.	BMP Complete. Continue to monitor changes to TMDLs and impairments.
Revised					

### 7b. WLA Assessment

Billerica’s MS4 discharges into the Shawsheen River, which has an approved Final TMDL for Bacteria. Because the TMDL is for a pollutant likely to be found in stormwater discharges from Billerica’s MS4, their Stormwater Management Program includes BMPs that address the waste load allocation (WLA) from point sources that include illicit connections to the drainage system and urban stormwater runoff. Billerica is making steady progress towards meeting the Shawsheen River Fecal Coliform WLAs through implementation of a number of existing stormwater control measures, as reported in the above Annual Report, that address pollutants of concern in water quality impaired waters.

To address Illicit Sewer Connections WLA, the Town has implemented the following BMPs under the Illicit Discharge Detection and Elimination Minimum Control Measure:

- Asset Management Program including improvements in Billerica’s public complaint response and tracking (BMP 3.4.1);
- Storm Drain Mapping (BMP 3.4.2);
- Stormwater By-law that addresses illicit discharges and illegal dumping, adopted at the October 2007 Town Meeting (BMP 3.4.4);
- Illicit Discharge Detection Program, which is ongoing (BMP 3.4.5);
- Illicit Discharge Elimination Program, now enforceable by the Board of Health through the new stormwater by-law (BMP 3.4.6); and
- Resident Education (BMP 3.4.7).

To address the Urban Stormwater Runoff WLA, the Town has implemented the following BMPs in the Stormwater Management Program:

- Construction Site Runoff Control through Billerica's Stormwater Management Bylaw, adopted at the October 2007 Town Meeting (BMPs 4.2.1, 4.2.2 and 4.2.3);
- Post-construction Stormwater Management through Billerica's Stormwater Management Bylaw (BMPs 5.3.2 and 5.3.4); and
- Catch Basin Cleaning and Street Sweeping Programs to keep debris from filling catch basins and maintain proper drainage system function (BMPs 6.3.4 and 6.3.5).

In addition, Billerica has a leash law with "pooper-scooper" provisions in General By-laws, Article VII, Section 2 - Regulation of Dogs, and pet stations for proper pet waste disposal. Postcards concerning proper disposal of pet waste are distributed with new dog licenses. The Board of Health regulates the design, construction, and inspection of septic systems and leach fields. The Town recently updated their Comprehensive Wastewater Management Plan (CWMP), and has continued to repair existing sewer infrastructure to reduce sewer line leaks and pump station overflows.

The Pathogen TMDL for the Concord River Watershed is still draft and has not been approved. The Town does not plan to add any additional BMPs to meet TMDL requirements at this time. Billerica's plan to meet watershed specific TMDL requirements is described in detail in the March 2008 memorandum entitled, *Best Management Practices to Address Shawsheen and Concord River TMDLs*, on file at the Engineering Office.



**Part IV. Summary of Information Collected and Analyzed**

N/A

**Part V. Program Outputs & Accomplishments (OPTIONAL)**

(Since beginning of permit coverage unless specified otherwise by a \*\*, which indicates response is for period covering April 1, 2011 through March 31, 2012)

**Programmatic**

	(Preferred Units)	Response
Stormwater management position created/staffed	(y/n)	Yes
Annual program budget/expenditures **	(\$)	\$ 85,168.90
Total program expenditures since beginning of permit coverage	(\$)	\$ 1,552,541.23
Funding mechanism(s) (General Fund, Enterprise, Utility, etc)		Town Meeting Appropriation, Operational Budget and General Fund

**Education, Involvement, and Training**

Estimated number of property owners reached by education program(s)	(# or %)	100%
Stormwater management committee established	(y/n)	Yes
Stream teams established or supported	(# or y/n)	Yes
Shoreline clean-up participation or quantity of shoreline miles cleaned **	(y/n or mi.)	1.67 mi
Shoreline cleaned since beginning of permit coverage	(mi.)	8.77 mi
Household Hazardous Waste Collection Days		
<ul style="list-style-type: none"> <li>▪ days sponsored **</li> <li>▪ community participation **</li> </ul>	(#)	12
	(# or %)	502 Ea.

<ul style="list-style-type: none"> <li>material collected **</li> </ul>	Oil Flammables Oxidizers Pesticides Corrosives Other Mercury	(tons or gal)	1,277 gal 3.69 tons 0.23 tons 0.58 tons 0.23 tons 2.50 tons 440 gallons .003 tons
School curricula implemented		(y/n)	Partial

**Legal/Regulatory**

	In Place Prior to Phase II	Reviewing Existing Authorities	Drafted	Draft in Review	Adopted
<b>Regulatory Mechanism Status (indicate with "X")</b>					
<ul style="list-style-type: none"> <li>Illicit Discharge Detection &amp; Elimination</li> </ul>					X
<ul style="list-style-type: none"> <li>Erosion &amp; Sediment Control</li> </ul>					X
<ul style="list-style-type: none"> <li>Post-Development Stormwater Management</li> </ul>					X
<b>Accompanying Regulation Status (indicate with "X")</b>					
<ul style="list-style-type: none"> <li>Illicit Discharge Detection &amp; Elimination</li> </ul>					N/A
<ul style="list-style-type: none"> <li>Erosion &amp; Sediment Control</li> </ul>					X
<ul style="list-style-type: none"> <li>Post-Development Stormwater Management</li> </ul>					X

**Mapping and Illicit Discharges**

	(Preferred Units)	Response
Outfall mapping complete	(%)	100
Estimated or actual number of outfalls	(#)	467
System-Wide mapping complete (complete storm sewer infrastructure)	(%)	84
<b>Mapping method(s)</b>		
<ul style="list-style-type: none"> <li>Paper/Mylar</li> </ul>	(%)	
<ul style="list-style-type: none"> <li>CADD</li> </ul>	(%)	
<ul style="list-style-type: none"> <li>GIS (<b>Note:</b> 75% of structured relocated with GPS. 25% previous GIS from existing maps.)</li> </ul>	(%)	100
Outfalls inspected/screened **	(# or %)	0
Outfalls inspected/screened (Since beginning of permit coverage)	(# or %)	100%

Illicit discharges identified **	(#)	0
Illicit discharges identified (Since beginning of permit coverage)	(#)	0
Illicit connections removed **	(#); and (est. gpd)	0
Illicit connections removed (Since beginning of permit coverage)	(#); and (est. gpd)	0
% of population on sewer	(%)	76
% of population on septic systems	(%)	24

### Construction

(Preferred Units) Response

Number of construction starts (>1-acre) **	(#)	
Estimated percentage of construction starts adequately regulated for erosion and sediment control **	(%)	100%
Site inspections completed **	(# or %)	
Tickets/Stop work orders issued **	(# or %)	
Fines collected **	(# and \$)	
Complaints/concerns received from public **	(#)	

### Post-Development Stormwater Management

Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control	(%)	100 %
Site inspections (for proper BMP installation & operation) completed **	(# or %)	100 %
BMP maintenance required through covenants, escrow, deed restrictions, etc.	(y/n)	Yes
Low-impact development (LID) practices permitted and encouraged	(y/n)	Yes

## Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets) **	(times/yr)	1 / year
Average frequency of catch basin cleaning (commercial/arterial or other critical streets) **	(times/yr)	1 / year
Qty of structures cleaned **	(#)	1,690
Qty. of storm drain cleaned **	(%, LF or mi.)	
Qty. of screenings/debris removed from storm sewer infrastructure **	(lbs. or tons)	64.70 tons
Disposal or use of screenings (landfill, POTW, compost, beneficial use, etc.) **	(location)	Eliot, Me. landfill

Basin Cleaning Costs		
• Annual budget/expenditure (labor & equipment) **	(\$)	\$44,294.90
• Hourly or per basin contract rate **	(\$/hr or \$ per basin)	\$26.21 / basin
• Disposal cost **	(\$)	
Cleaning Equipment		
• Clam shell truck(s) owned/leased	(#)	2
• Vacuum truck(s) owned/leased	(#)	1
• Vacuum trucks specified in contracts	(y/n)	No
• % Structures cleaned with clam shells **	(%)	
• % Structures cleaned with vactor **	(%)	

	(Preferred Units)	Response
Average frequency of street sweeping (non-commercial/non-arterial streets) **	(times/yr)	1
Average frequency of street sweeping (commercial/arterial or other critical streets) **	(times/yr)	2-3
Qty. of sand/debris collected by sweeping **	(lbs. or tons)	Approximately 1,422,000 lbs
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.) **	(location)	RCI Fitchburg Landfill
Annual Sweeping Costs		
• Annual budget/expenditure (labor & equipment) **	(\$)	
• Hourly or lane mile contract rate **	(\$/hr. or In mi.)	n/a
• Disposal cost **	(\$)	n/a
Sweeping Equipment		
• Rotary brush street sweepers owned/leased	(#)	3
• Vacuum street sweepers owned/leased	(#)	0
• Vacuum street sweepers specified in contracts	(y/n)	No
• % Roads swept with rotary brush sweepers **	%	100
• % Roads swept with vacuum sweepers **	%	0

Reduction (since beginning of permit coverage) in application on public land of: ("N/A" = never used; "100%" = elimination)		
▪ Fertilizers	(lbs. or %)	
▪ Herbicides	(lbs. or %)	
▪ Pesticides	(lbs. or %)	
Integrated Pest Management (IPM) Practices Implemented	(y/n)	

	(Preferred Units)	Response
Average Ratio of Anti-/De-Icing products used **	% NaCl	99%
(also identify chemicals and ratios used in specific areas, e.g., water supply protection areas)	% CaCl <sub>2</sub>	0
	% MgCl <sub>2</sub>	0
	% CMA	0
	% Kac	0
	% KCl	0
	% Sand	1.0%
Pre-wetting techniques utilized **	(y/n or %)	No
Manual control spreaders used **	(y/n or %)	No
Zero-velocity spreaders used **	(y/n or %)	No
Estimated net reduction or increase in typical year salt/chemical application rate	(±lbs/ln mi. or %)	n/a
Estimated net reduction or increase in typical year sand application rate **	(±lbs/ln mi. or %)	n/a
% of salt/chemical pile(s) covered in storage shed(s)	(%)	100
Storage shed(s) in design or under construction	(y/n or #)	No (In place)
100% of salt/chemical pile(s) covered in storage shed(s) by May 2008	(y/n)	Yes

**Water Supply Protection**

Storm water outfalls to public water supplies eliminated or relocated	# or y/n	No
Installed or planned treatment BMPs for public drinking water supplies and their protection areas	# or y/n	No
<ul style="list-style-type: none"> <li>Treatment units induce infiltration within 500-feet of a wellhead protection area</li> </ul>	# or y/n	No